KENYA NATIONAL EXAMINATION COUNCIL

AGRICULTURE PROJECT 2025

PERSONAL SCHEME ON BEEHIVES (JARAMOGI BEE KEEPERS)

Hive construction involves building a structure to house bees. There are different types of hives, including top-bar hives and box hives.

Construction steps

Materials and tools Timber, Nails, Template, and Beeswax.

1. Cut the timber to the correct size
2. Plane the wood to ensure a neat fit
3. Nail two shorter pieces together to make the gable ends
4. Use a template to measure the gable shape
5. Saw the gable shapes to the correct size and shape
6. Cut an entrance in one of the gable ends
7. Attach the side pieces to the gable end using nails
8. Attach the floor

Top-bar hives

- Also known as moveable comb hives, these hives are rectangular boxes covered with bars
- Bees build their combs from the center of the top bar
- The moveable combs allow you to inspect the hive and replace honey combs

Location

When selecting a location for your hive, consider:

- Forage source
- Water
- Space for bees and beekeeper
- Accessibility
- Protection from predators

- Protection from extreme weather

A **Beehive Agricultural Project** for secondary school students is a great initiative that teaches sustainable farming, environmental conservation, and entrepreneurship.

STRUCTURE

1. Objectives

- Educate students on beekeeping and its importance in agriculture.
- Promote environmental conservation and biodiversity.
- Provide hands-on experience in beekeeping and honey production.
- Develop entrepreneurial skills through honey and beeswax product sales.

2. Project Setup

A. Planning Phase

- **Secure Approval**: Get permission from the school administration.
- **Identify Location**: Choose a safe, shaded, and flower-rich area within the school compound.
- **Budget & Funding**: Seek sponsorships, grants, or school funding for materials.

B. Equipment & Materials

- Beehives (Kenyan Top Bar or Langstroth Hives)
- Protective gear (bee suits, gloves, veils)
- Hive tools (smokers, hive openers, brushes)
- Honey harvesting and processing equipment
- Bee feeders (for dry seasons)

C. Training & Education

- Engage a local beekeeper or agricultural expert to train students.
- Teach students about:
    - Bee biology and behavior
    - Hive management and maintenance
    - Harvesting honey and wax
    - Processing and packaging

3. Implementation

A. Hive Installation

- Set up at least 2-5 hives to start.
- Ensure hives are placed away from high-traffic student areas.
- Install water sources nearby.

B. Hive Management

- Weekly student-led hive inspections.
- Keeping records of hive health and honey production.
- Feeding bees during drought periods.

C. Harvesting & Processing

- Schedule honey harvesting every 3-4 months.
- Use hygienic extraction and packaging methods.
- Process beeswax into candles, balms, or soap.

4. Business & Marketing

- Brand the honey with a unique school label.
- Sell honey to parents, teachers, and local markets.
- Create value-added products like lip balms, candles, and soap.

5. Sustainability & Expansion

- Reinvest profits into expanding hives.
- Engage more students in different roles (marketing, sales, production).
- Organize educational visits and inter-school beekeeping competitions.